



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/849,057

05/20/2004

Yoshinori Uchida

65933-088

6748

7590

11/30/2005

McDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

DESIR, PIERRE LOUIS

ART UNIT

PAPER NUMBER

2681

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/849,057

Applicant(s)

UCHIDA, YOSHINORI

Examiner

Pierre-Louis Desir

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/16/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 10-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 10 claims, "a program which makes a computer execute," which is directed to non-statutory subject matter. Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Note: for the process of examination, "a computer program which makes a computer execute:" will be interpreted as "a computer readable medium encoded with a computer program which makes the computer readable medium execute," and the remaining dependent claims (claims 11-13) will be interpreted accordingly.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-13 rejected under 35 U.S.C. 102(b) as being anticipated by Olofsson et al. (Olofsson), U.S. Patent No. 6167031.

Regarding claim 1, Olofsson discloses a base station apparatus (see col. 7, lines 56-57) comprising: a communication unit which communicates with a terminal apparatus at variable transmission rates (see col. 5, line 50 to col. 6, line 2, and lines 27-37; col. 7, lines 31 to col. 8, line 2, and col. 8, lines 8-17); a channel allocation unit which allocates a channel to the terminal apparatus over a predetermined period (i.e., time period) (see col. 6, lines 37-40 and lines 49-51, and col. 8, lines 8-17); a change planning unit which plans timing for changing a transmission rate for the terminal apparatus in the channel-allocated period (see col. 6, lines 46-48, col. 8, lines 27-30, and col. 11, lines 12-22); and a change determination unit which determines whether or not it perform the change of the transmission rate for the terminal apparatus, based on the timing for changing the transmission rate planned by the change planning unit in the channel-allocated period (see col. 6, lines 49-65, col. 7, lines 11-17, and col. 11, line 63 to col. 12, line 17).

Regarding claim 2, Olofsson discloses a base station (see claim 1 rejection) further comprising a link quality derivation unit which derives link quality with respect to the terminal apparatus (see col. 4, line 42-to col. 5, line 2), wherein the change determination unit derives a

Art Unit: 2681

remaining period of the channel for the case of changing the transmission rate, based on a length of the channel-allocated period and the planned timing for changing the transmission rate (see figs. 2-4, 8-9, and col. 6, line 37 to col. 7, line 17, col. 8, lines 9-35, col. 12, lines 12-47, and col. 12, lines 6-36), and further determines to perform the change of the transmission rate based on the derived link quality depending on the derived remaining period of the channel (see figs. 2-4, 8-9, and col. 6, line 37 to col. 7, line 17, col. 8, lines 9-35, col. 12, lines 12-47, and col. 12, lines 6-36).

Regarding claim 3, Olofsson discloses a base station (see claim 2 rejection) wherein for the link quality with respect to the terminal apparatus, the link quality derivation unit measures link quality based on a signal received from the terminal apparatus (see col. 8, lines 18-35, and col. 11, lines 12-47).

Regarding claim 4, Olofsson discloses a base station (see claim 2 rejection) wherein for the link quality with respect to the terminal apparatus, the link quality derivation unit detects information on link quality which is included in a signal received from the terminal apparatus (see col. 8, lines 18-35, and col. 11, lines 12-47).

Regarding claim 5, Olofsson discloses a transmission rate changing method (see abstract) comprising: making a plan for changing a transmission rate in a period during which a channel is allocated to a terminal apparatus (see col. 6, lines 49-65); and determining whether or not it perform the plan, through calculation using a criterion determined with consideration given to a drop in transmission efficiency resulting from the execution of the plan (see col. 7, lines 11-17, col. 11, line 63 to col. 12, line 17).

Regarding claim 6, Olofsson discloses a transmission rate changing method (see abstract) comprising: allocating a channel to a terminal apparatus over a predetermined period (i.e., time period) (see col. 6, lines 37-40 and lines 49-51, and col. 8, lines 8-17); planning timing for changing a transmission rate for the terminal apparatus in the channel-allocated period (see col. 6, lines 46-48, col. 8, lines 27-30, and col. 11, lines 12-22); and determining whether or not to change the transmission rate at the planned timing based on the planned timing in the channel-allocated period (see col. 6, lines 49-65, col. 7, lines 11-17, and col. 11, line 63 to col. 12, line 17).

Regarding claim 7, Olofsson discloses a method (see claim 6 rejection) further comprising deriving link quality with respect to the terminal apparatus (see col. 4, line 42-to col. 5, line 2), wherein in determining whether or not to change the transmission rate at the planned timing based on the planned timing in the channel-allocated period, the remaining period of the channel for the case of changing the transmission rate is derived from a length of the channel-allocated period and the planned timing for changing the transmission rate in planning timing for changing a transmission rate (see figs. 2-4, 8-9, and col. 6, line 37 to col. 7, line 17, col. 8, lines 9-35, col. 12, lines 12-47, and col. 12, lines 6-36), and whether or not to perform the change of the transmission rate based on the derived link quality is determined depending on the derived remaining period of the channel (see figs. 2-4, 8-9, and col. 6, line 37 to col. 7, line 17, col. 8, lines 9-35, col. 12, lines 12-47, and col. 12, lines 6-36).

Regarding claim 8, Olofsson discloses a method (see claim 7 rejection) wherein in deriving the link quality with respect to the terminal apparatus, link quality based on a signal received from the terminal apparatus is measured as the link quality with respect to the terminal

Art Unit: 2681

apparatus (see col. 8, lines 18-35, and col. 11, lines 12-47).

Regarding claim 9, Olofsson discloses a method (see claim 7 rejection) wherein in deriving the link quality with respect to the terminal apparatus, information on link quality included in a signal received from the terminal apparatus is detected as the link quality with respect to the terminal apparatus (see col. 8, lines 18-35, and col. 11, lines 12-47).

Regarding claim 10, Olofsson discloses a computer readable medium encoded with a computer program, which makes the computer readable medium execute allocating a channel to a terminal apparatus via a wireless network over a predetermined period i.e., time period) (see col. 6, lines 37-40 and lines 49-51, and col. 8, lines 8-17); planning timing for changing a transmission rate for the terminal apparatus in the channel-allocated period see col. 6, lines 46-48, col. 8, lines 27-30, and col. 11, lines 12-22); and determining whether or not to change the transmission rate at the planned timing based on the planned timing in the channel-allocated period (see col. 6, lines 49-65, col. 7, lines 11-17, and col. 11, line 63 to col. 12, line 17).

Regarding claim 11, Olofsson discloses a computer readable medium encoded with a computer program (see claim 10 rejection), which makes the computer readable medium further execute deriving link quality with respect to the terminal apparatus via the wireless network (see col. 4, line 42-to col. 5, line 2), wherein in determining whether or not to change the transmission rate at the planned timing based on the planned timing in the channel-allocated period, the remaining period of the channel for the case of changing the transmission rate is derived from a length of the channel-allocated period and the planned timing for changing the transmission rate in planning timing for changing a transmission rate (see figs. 2-4, 8-9, and col. 6, line 37 to col. 7, line 17, col. 8, lines 9-35, col. 12, lines 12-47, and col. 12, lines 6-36), and whether or not to

Art Unit: 2681

perform the change of the transmission rate based on the derived link quality is determined depending on the derived remaining period of the channel (see figs. 2-4, 8-9, and col. 6, line 37 to col. 7, line 17, col. 8, lines 9-35, col. 12, lines 12-47, and col. 12, lines 6-36).

Regarding claim 12, Olofsson discloses a computer readable medium (see claim 11 rejection) wherein in deriving the link quality with respect to the terminal apparatus via the wireless network, link quality based on a signal received from the terminal apparatus via the wireless network is measured as the link quality with respect to the terminal apparatus (see col. 8, lines 18-35, and col. 11, lines 12-47).

Regarding claim 13, Olofsson discloses a computer readable medium (see claim 11 rejection) wherein in deriving the link quality with respect to the terminal apparatus via the wireless network, information on link quality included in a signal received from the terminal apparatus via the wireless network is detected as the link quality with respect to the terminal apparatus (see col. 8, lines 18-35, and col. 11, lines 12-47).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-779. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Pierre-Louis Desir
AU 2681
11/25/2005



JOSEPH FEILD
SUPERVISORY PATENT EXAMINER